IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of: Mazen Faraj	:	
	:	Before the Examiner:
Serial No: 10/718,301	:	Eric V. Woods
Filed: 11/20/2003	:	Group Art Unit: 2672
Title: SYSTEM, COMPUTER PROGRAM PRODUCT AND METHOD OF DISPLAYING LOCAL AND REMOTE DATA OBJECTS AND OF INTERACTING WITH SAME	:	Confirmation No.: 9790

APPELLANT'S BRIEF UNDER 37 CFR §41.37

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an Appeal to a Final rejection dated October 05, 2007 of the claims in the Application. This Brief is submitted pursuant to a Notice of Appeal filed on January 02, 2008 in accordance with 37 CFR §41.31.

BRIEF FOR APPLICANT – APPELLANT

(i)

Real Party in Interest

The real Party in interest is International Business Machines Corporation (IBM), the assignee.

(ii)

Related Appeals and Interferences

There are no other appeals or interferences known to appellants, appellants' representative or assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(iii)

Status of Claims

Claims 1 – 22 were originally filed in the Application. Claims 2 - 22 were subsequently canceled and Claims 23 – 40 added. Claims 1 and 23 – 40 are finally rejected and are being appealed.

(iv)

Status of Amendment

An "Amendment after Final" was not filed.

(v)

Summary of Claimed Subject Matter

The invention, as claimed in Claim 1, provides a method of interacting with locally and remotely stored data objects in a distributed data processing system. The method comprises: determining whether a data object is stored on both a remote system in the distributed data processing system and a local system (page 7, lines 9 – 16,); displaying on the local system, if it is determined that the data object is stored on both the local system and the remote system in the

distributed data processing system, the data object as a hybrid data object, the hybrid data object representing both the data object stored on the local system and the data object stored on the remote system (page 8, lines 7 – 10, file_C 312 of Figs. 3A, 3B, 3C, 3D and 3E); enabling a user on the local system to perform an action on the hybrid data object by first selecting the hybrid data object (page 9, lines 9 and 10 and file_C 312 in Figs. 3D and 3E in boldface); prompting the user, in response to the user selecting the hybrid data object, to indicate whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system (page 9, lines 29 - 32 and dropdown window 350 in Fig. 3E); and performing the action as indicated by the user (page 9, lines 29 – 32).

The invention, as claimed in Claim 28, provides a computer-readable medium encoded with a computer program product, which when executed by a computer system, enables a user to interact with locally and remotely stored data objects in a distributed data processing system, comprising: code means for determining whether a data object is stored on both a remote system in the distributed data processing system and a local system (page 7, lines 9 – 16,); code means for displaying on the local system, if it is determined that the data object is stored on both the local system and the remote system in the distributed data processing system, the data object as a hybrid data object, the hybrid data object representing both the data object stored on the local system and the data object stored on the remote system (page 8, lines 7 – 10, file_C 312 of Figs. 3A, 3B, 3C, 3D and 3E); code means for enabling a user on the local system to perform an action on the hybrid data object by first selecting the hybrid data object (page 9, lines 9 and 10 and file_C 312 in boldface in Figs. 3D and 3E); code means for prompting the user, in response to the user selecting the hybrid data object, to indicate whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the

remote system (page 9, lines 29 - 32 and dropdown window 350 in figure 3E); and code means for performing the action as indicated by the user (page 9, lines 29 – 32). The code means of the invention are the means on page 10, line 23 to page 12, line 24 and in Figs. 4A, 4B, 4C and 4D when processed by the workstation 104.

The invention, as claimed in Claim 34, provides a system on which a user is enabled to interact with locally and remotely stored data objects in a distributed data processing system. The system comprises: at least one storage device for storing code data; and at least one processor for processing the code data to determine whether a data object is stored on both a remote system in the distributed data processing system and the system (page 7, lines 9 – 16,), to display, if it is determined that the data object is stored on both the system and the remote system in the distributed data processing system, the data object as a hybrid data object, the hybrid data object representing both the data object stored on the system and the data object stored on the remote system (page 8, lines 7 – 10, file_C 312 of Figs. 3A, 3B, 3C, 3D and 3E), to enable the user to perform an action on the hybrid data object by first selecting the hybrid data object (page 9, lines 9 and 10 and file_C 312 in boldface in Figs. 3D and 3E), to prompt the user, in response to the user selecting the hybrid data object, to indicate whether the action is to be performed on the data object stored on the system, the data object stored on the remote system, or both the data object stored on the system and the data object stored on the remote system (page 9, lines 29 - 32 and dropdown window 350 in Fig. 3E), and to perform the action as indicated by the user (page 9, lines 29 – 32).

The invention, as claimed in Claim 40, provides a method of enabling a user on a local system to interact with shared data objects in a distributed data processing system. The method comprises: determining whether each shared data object is stored on the local system, a remote system or both the local system and the remote system in the distributed data processing system (page 7, lines 9 – 16); displaying on the local system the shared data objects, each

shared data object being displayed as a local data object if it is determined that the data object is stored on the local system, a remote data object if it is determined that the shared data object is stored on the remote system or a hybrid data object if it is determined that the data object is stored on both the local system and the remote system (page 8, lines 7 – 10, file_C 312 of Figs. 3A, 3B, 3C, 3D and 3E); enabling the user to perform an action on a shared data object by first selecting a displayed data object representing the shared data object (page 8, line 21 and file_A 310 in boldface in Fig. 3B; page 8, lines 32 and 33 and file_B 314 in boldface in Fig. 3C; page 9, lines 9 and 10 and file_C 312 in boldface in Figs. 3D and 3E); prompting the user, if the displayed data object selected is a hybrid data object, to indicate whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system (page 9, lines 29 - 32 and dropdown window 350 in Fig. 3E); displaying a list of actions that can be performed on the selected data object after the user selects the displayed data object or after the user indicates whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system if the selected data object is a hybrid data object (page 9, lines 23 – 27 and dropdown window 340 in Fig. 3E); and performing the action as indicated by the user (page 9, lines 29 – 32).

(vi)

Grounds of Rejection to be Reviewed on Appeal

Whether it was proper to reject Claims 1, 23, 28, 29, 34, 35 and 40 under 35 USC §103(a) as being unpatentable over Pajak et al., in view of Bly et al. and Rich et al.

Whether it was proper to reject Claims 27, 33 and 39 under 35 USC §103(a) as being unpatentable over Pajak et al., in view of Bly et al. and Rich et al. and further in view of Bartram et al.

(vii)

Arguments

Whether it was proper to reject Claims 1, 23, 28, 29, 34, 35 and 40 under 35 USC §103(a) as being unpatentable over Pajak et al., in view of Bly et al. and Rich et al.

In reviewing the Final Office Action, Appellant noted that the Examiner indicated that Claim 22, a canceled claim, had been rejected and omitted to indicate that Claims 23 and 40 were rejected under 35 USC §103(a) as being unpatentable over Pajak et al., in view of Bly et al. and Rich et al.

For the purpose of the Appeal, Appellant will treat both Claims 23 and 40 as being rejected under 35 USC §103(a) as being unpatentable over Pajak et al., in view of Bly et al. and Rich et al.

Claims 1, 28, 34 and 40

In considering a Section §103 rejection, the subject matter of the claim "as a whole" must be considered and analyzed. In the analysis, it is necessary that the scope and contents of the prior art and differences between the art and the claimed invention be determined. *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

In rejecting the claims, the Examiner asserted that Pajak et al. teach the steps of (1) ***determining whether a data object is stored on both a remote system in the distributed data processing system and a local system***; (2) ***displaying on the local system, if it is determined that the data object is stored on both the local system and the remote system in the distributed data processing system, the data object as a hybrid data object, the hybrid data object representing both the data object stored on the local system and the data object stored on the remote system***; (3) ***enabling a user on the***

local system to perform an action on the hybrid data object by first selecting the hybrid data object; and (4) ***performing the action as indicated by the user***.

The Examiner then admitted that Pajak et al. do not teach such details as a **hybrid data object** representing a file that exists both locally and remotely in an independent manner such that the local copy of the file may be edited locally without having to first lock the copy of the file on the remote system before downloading the file on the local system; but that Bly et al. teach that the file system used in Pajak et al. can allow the user to a copy locally that does not require the direct lock since it is saved in separate directory. Thus, the Examiner concluded, it would have been obvious to one skilled in the art combine the teachings of Pajak et al. with those of Bly et al.

The Examiner then further admitted that both Pajak et al. and Bly et al. do not teach the step of ***prompting the user, in response to the user selecting the hybrid data object, to indicate whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system***. However, the Examiner asserted because Rich et al. teach that changes to a replicated file (i.e., local copy of the file) are made to a local copy and that the user has to decide whether to commit the changes to a persistent copy of the file (i.e., a remote copy of the file) or whether to discard the changes, Rich et al., therefore, teach the prompting step. Appellant respectfully disagrees.

Assuming, arguendo, that both Pajak et al. and Bly et al. did teach what the Examiner asserted that they teach, there would not be any reason for anyone skilled in the art to combine the teachings of Pajak et al. and Bly et al. with those of Rich et al. to arrive at the claimed invention.

Rich et al. teach a transaction-scoped replication for distributed object systems. In accordance with the teachings of Rich et al., a remote object is replicated to a node of a distributed system from which it is accessed. The scope

of the replication is a transaction. Thereafter, method invocations on the object occur locally, avoiding the performance overhead of frequent round trips to the remote persistent object store. Changes made to a replicated object by a transaction are represented using a tree structure that is internally managed by the application. When an application or application user has made modifications to a replicated object and requests to commit the modifications, a determination is first made as to whether committing the modifications will result in an unacceptable data conflict. If no unacceptable data conflict will occur, and after resolution of those conflicts that can be resolved, the modifications are committed.

Thus, Rich et al. specifically advocate replicating a file at a local node (i.e., downloading a copy of a remote file and storing the downloaded copy locally) and making changes to the local copy. The changes may then later be committed to the remote copy of the file by replacing the remote copy of the file with the changed local copy of the file (see col. 8, lines 1 – 8). Hence, according to the teachings of Rich et al., there is only one copy of the file at the local system (e.g., the local copy of the file). Consequently, there is no reason for Rich et al. to teach prompting the user to indicate whether any actions that are to be performed are to be performed on the local copy of the file, the remote copy of the file or both the local and remote copies of the file when that (local) copy of the file is selected.

Therefore, Appellant submits that Rich et al. do not teach the step of ***prompting the user, <u>in response to the user selecting the hybrid data object</u>, to indicate whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system*** as asserted by the Examiner.

Hence, there would not be any reason for anyone skilled in the art to combine the teachings of Rich et al. with those of Pajak et al. and Bly et al. in a

quest to arrive at the claimed invention since the combination does not teach or suggest the claimed invention.

Therefore, the claims are patentable over the applied references.

Whether it was proper to reject Claims 27, 33 and 39 under 35 USC §103(a) as being unpatentable over Pajak et al., in view of Bly et al. and Rich et al. and further in view of Bartram et al.

Claims 27, 33 and 39

Claim 27 (which depends on Claims 1, 23, 24, 25 and 26), Claim 33 (which depends on Claims 28, 29, 30, 31 and 32) and Claim 39 (which depends Claims 34, 35, 36, 37 and 38) further include the limitations "wherein when the data object selected is the hybrid data object, the list of actions displayed is a list of both local and remote actions."

The Examiner admitted that none of the previously applied references (i.e., Pajak et al., Bly et al. and Rich et al.) teach the limitations of the claimed invention. However, the Examiner asserted that Bartram et al. teach those limitations and concluded that it would have been obvious for one skilled in the art to combine the teachings of Pajak et al., Bly et al. and Rich et al. with those of Bartram et al. to arrive at the claimed invention. Appellant respectfully disagrees.

Bartram et al. purport to teach a system and method for distributing shared storage for collaboration across multiple devices. According to the teachings of Bartram et al., objects can be shared across a number of units on a peer-to-peer network. The objects are supplied by individual users and reflected at other units in a user interface view dedicated to a shared store using object anchors. The object anchors are pointers to the objects and not the objects themselves. Users can make a copy of any remote object by selecting a local copy operation on the remote object's anchor. Multiple copies of an object can therefore exist on the shared store and are indicated by the object's owners to others. When a person's local copy needs to be merged or reconciled with

another, the version information can be supplied to the appropriate people and the decision of how to synchronize a file content is left to the user's specific application tools.

But note that Bartram et al. specifically teach that locally stored objects are displayed in a local storage area and remotely stored objects are displayed in a shared store display area (see Fig. 1 and paragraphs [0011] and [0018] of Bertram et al.) and when a copy of an object exists both locally and remotely it is indicated in a reference column (see paragraph [0019] and item 4 in Fig. 3 of Bartram et al.). Therefore, a user can only select either a locally stored file or a remotely stored file. Consequently, there is no reason for Bartram et al. to teach displaying a list of both local and remote actions when a hybrid object is selected.

Thus, Appellant submits that Bartram et al. do not teach, show or suggest the limitations "wherein when the data object selected is the hybrid data object, the list of actions displayed is a list of both local and remote actions" as claimed.

Hence, combining the teachings of Bartram et al. with those of Pajak et al., Bly et al. and Rich et al. does not teach, show or suggest the claimed invention.

Consequently, the claims are patentable over the combination of the teachings of the applied references.

Based on the foregoing, Appellant requests reversal of the rejection of the claims in the Application.

Respectfully Submitted

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(viii)

Claims Appendix

1. A method of interacting with locally and remotely stored data objects in a distributed data processing system, comprising:

determining whether a data object is stored on both a remote system in the distributed data processing system and a local system;

displaying on the local system, if it is determined that the data object is stored on both the local system and the remote system in the distributed data processing system, the data object as a hybrid data object, the hybrid data object representing both the data object stored on the local system and the data object stored on the remote system;

enabling a user on the local system to perform an action on the hybrid data object by first selecting the hybrid data object;

prompting the user, in response to the user selecting the hybrid data object, to indicate whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system; and

performing the action as indicated by the user.

2 – 22. Canceled.

23. The method of Claim 1 wherein locally stored data objects and remotely stored data objects are displayed in conjunction with the hybrid data object.

24. The method of Claim 23 wherein in response to the user selecting a data object on which to perform an action, a list of actions is displayed, the list of actions including all actions that can be performed on the selected data object.

25. The method of Claim 24 wherein when the data object selected is a locally stored data object, the list of actions displayed is a list of local actions.

26. The method of Claim 24 wherein when the data object selected is a remotely stored data object, the list of actions displayed is a list of remote actions.

27. The method of Claim 24 wherein when the data object selected is the hybrid data object, the list of actions displayed is a list of both local and remote actions.

28. A computer-readable medium encoded with a computer program product, which when executed by a computer system, enables a user to interact with locally and remotely stored data objects in a distributed data processing system, comprising:

code means for determining whether a data object is stored on both a remote system in the distributed data processing system and a local system;

code means for displaying on the local system, if it is determined that the data object is stored on both the local system and the remote system in the distributed data processing system, the data object as a hybrid data object, the hybrid data object representing both the data object stored on the local system and the data object stored on the remote system;

code means for enabling a user on the local system to perform an action on the hybrid data object by first selecting the hybrid data object;

code means for prompting the user, in response to the user selecting the hybrid data object, to indicate whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system; and

code means for performing the action as indicated by the user.

29. The computer-readable medium of Claim 28 wherein locally stored data objects and remotely stored data objects are displayed in conjunction with the hybrid data object.

30. The computer-readable medium of Claim 29 wherein in response to the user selecting a data object on which to perform an action, a list of actions is displayed, the list of actions including all actions that can be performed on the selected data object.

31. The computer-readable medium of Claim 30 wherein when the data object selected is a locally stored data object, the list of actions displayed is a list of local actions.

32. The computer-readable medium of Claim 30 wherein when the data object selected is a remotely stored data object, the list of actions displayed is a list of remote actions.

33. The computer-readable medium of Claim 30 wherein when the data object selected is the hybrid data object, the list of actions displayed is a list of both local and remote actions.

34. A system on which a user is enabled to interact with locally and remotely stored data objects in a distributed data processing system, comprising:

at least one storage device for storing code data; and

at least one processor for processing the code data to determine whether a data object is stored on both a remote system in the distributed data processing system and the system, to display, if it is determined that the data object is stored on both the system and the remote system in the distributed data processing system, the data object as a hybrid data object, the hybrid data object representing both the data object stored on the system and the data object stored on the remote system, to enable the user to perform an action on the hybrid data object by first selecting the hybrid data object, to prompt the user, in response to the user selecting the hybrid data object, to indicate whether the action is to be performed on the data object stored on the system, the data object stored on the remote system, or both the data object stored on the system and the data object stored on the remote system, and to perform the action as indicated by the user.

35. The system of Claim 34 wherein locally stored data objects and remotely stored data objects are displayed in conjunction with the hybrid data object.

36. The system of Claim 35 wherein in response to the user selecting a data object on which to perform an action, a list of actions is displayed, the list of actions including all actions that can be performed on the selected data object.

37. The system of Claim 36 wherein when the data object selected is a locally stored data object, the list of actions displayed is a list of local actions.

38. The system of Claim 36 wherein when the data object selected is a remotely stored data object, the list of actions displayed is a list of remote actions.

39. The system of Claim 36 wherein when the data object selected is the hybrid data object, the list of actions displayed is a list of both local and remote actions.

40. A method of enabling a user on a local system to interact with shared data objects in a distributed data processing system, comprising:

determining whether each shared data object is stored on the local system, a remote system or both the local system and the remote system in the distributed data processing system;

displaying on the local system the shared data objects, each shared data object being displayed as a local data object if it is determined that the data object is stored on the local system, a remote data object if it is

determined that the shared data object is stored on the remote system or a hybrid data object if it is determined that the data object is stored on both the local system and the remote system;

enabling the user to perform an action on a shared data object by first selecting a displayed data object representing the shared data object;

prompting the user, if the displayed data object selected is a hybrid data object, to indicate whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system;

displaying a list of actions that can be performed on the selected data object after the user selects the displayed data object or after the user indicates whether the action is to be performed on the data object stored on the local system, the data object stored on the remote system, or both the data object stored on the local system and the data object stored on the remote system if the selected data object is a hybrid data object; and

performing the action as indicated by the user.

(ix)

Evidence Appendix

None.

(x)

Related Proceedings Appendix

None.